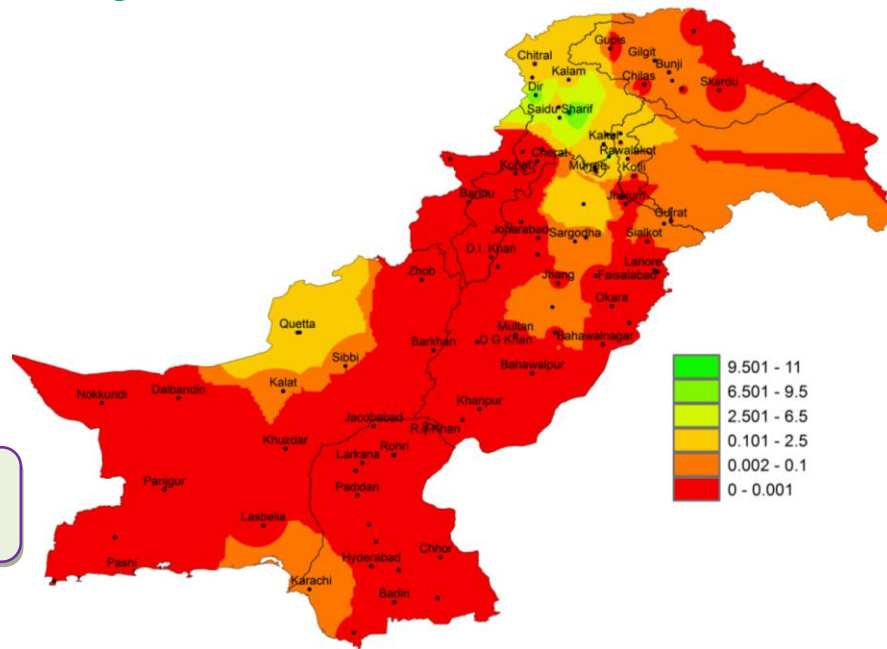


# Weekly Weather and Crop Bulletin for Pakistan

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Rainfall Distribution (mm) during the previous  
Week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)

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## Highlights of Past Weather (1<sup>st</sup> to 7<sup>th</sup> January, 2018)

Below normal night time temperatures were observed in most parts of Punjab, KP, Gilgit-Baltistan and Kashmir while mix trend observed in Baluchistan and Sindh.

Province wise Rainfall distribution reported as follows:

- Light rainfall (including *traces*) reported from scattered places of KP (Malakand and Hazara divisions) while at isolated places in Punjab, Gilgit-Baltistan and Kashmir during previous week.
- Light rainfall (*trace*) reported from single places of Sindh (Karachi) and Baluchistan (Quetta), during previous week.

**Patron-in-Chief: Dr. Ghulam Rasul (Director General)**

**Editor-in-Chief: Dr. Khalid M. Malik (Director)**

**Editor: Dr. Dildar H. Kazmi (Meteorologist)**

## Past Weather of Provinces (1<sup>st</sup> to 7<sup>th</sup> January, 2018)

### Punjab

Light rainfall reported from Punjab during the week. Weekly maximum and minimum temperatures recorded as 19.1°C & 4.0°C respectively. For the recent week on average 45.9 growing degree days were accumulated by the end of the last week. Average relative humidity recorded as 60% and wind speed in the morning/evening recorded as 0.7/1.1 knots. During the previous week, highest amount of rainfall was recorded as 3.0 mm at Murree & lowest minimum temperature was recorded as -3.0°C at Murree.

### Balochistan

Light rainfall *trace* (0.5 mm) reported from only one place of Balochistan during the week. Weekly maximum and minimum temperatures recorded as 21.2°C & 4.2°C respectively. For the recent week on average 59.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 46% and wind speed in the morning/evening recorded as 1.0/3.2 knots. During the previous week, highest amount of rainfall was recorded as 0.5 mm at Quetta & lowest minimum temperature was recorded as -8.0°C at Quetta.

### Khyber Pakhtunkhwa

Light rainfall reported from Khyber Pakhtunkhwa during the week. Weekly maximum and minimum temperatures recorded as 14.9°C & 0.9°C respectively. For the recent week on average 28.6 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 0.8/1.9 knots. During the previous week, highest amount of rainfall was recorded as 11.0 mm at MalamJabba & lowest minimum temperature was recorded as -8.0°C at Kalam.

### Gilgit-Baltistan and Azad Jammu & Kashmir

Light rainfall reported from Kashmir and Gilgit-Baltistan during the week. Weekly maximum and minimum temperatures recorded as 10.3°C & -2.5°C respectively. For the recent week on average 33.8 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 58% and wind speed in the morning/evening recorded as 1.0/1.4 knots. During the previous week, highest amount of rainfall was recorded as 5.2 mm at Bagrote & lowest minimum temperature was recorded as -10.3°C at Skardu.

### Sindh

Light rainfall (*trace*) reported from single place of Sindh during the week. Weekly maximum and minimum temperatures recorded as 25.0°C & 7.7°C respectively. For the recent week, on average 78.2 growing degree days were accumulated by the end of last week. Average relative humidity recorded as 61% and wind speed in the morning/evening recorded as 0.4/3.1 knots. . During the previous week, highest amount of rainfall was recorded as 0.01 mm at Karachi & lowest minimum temperature was recorded as 2.0°C at Mithi.

**Past Weather for Major Agricultural Plains  
(8<sup>th</sup> to 14<sup>th</sup> January, 2018)**

**Rawalpindi (Potohar region)**

Rainfall reported as *trace* from Rawalpindi during the week; however, cloudiness in the morning/evening recorded as 1.0/1.0 Oktas while average relative humidity observed as 77%. Mean night time temperature recorded as 1.4°C & for the recent week 38.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.3/0.6 knots.

**Faisalabad (Central Punjab)**

Dry weather reported from Faisalabad during the week; however, cloudiness in the morning/evening recorded as 0.0/0.9 Oktas while average relative humidity observed as 72%. Mean night time temperature recorded as 2.8°C & for the recent week 47.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

**Tandojam (Lower Sindh)**

Dry weather reported from Tandojam during the week; however, cloudiness in the morning/evening recorded as 0.0/0.0 Oktas while average relative humidity observed as 58%. Mean night time temperature recorded as 5.0°C & for the recent week 71.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/1.2 knots.

**Usta Muhammad (Eastern Balochistan)**

Dry weather reported from Usta Muhammad during the week; however, cloudiness in the morning/evening recorded 0.0/0.0 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as 9.9°C & for the recent week 85.3 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 knots.

**Quetta (Northern Baluchistan)**

Rainfall reported as 2.0 mm from Quetta during the week; however, cloudiness in the morning/evening recorded as 1.0/0.4 Oktas while average relative humidity observed as 32%. Mean night time temperature recorded as -1.7°C & for the recent

week 7.5 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 1.5/2.5 knots.

**Past Weather for Sub-Regional Agricultural Plains (8<sup>th</sup> to 14<sup>th</sup> January, 2018)**

**Multan**

Dry weather reported from Multan during the week; however, cloudiness in the morning/evening recorded as 0.4/0.0 Oktas while average relative humidity observed as 49%. Mean night time temperature recorded as 5.4°C & for the recent week 53.1 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.8/2.9 knots.

**Lahore**

Dry weather reported from Lahore during the week; however, cloudiness in the morning/evening recorded as 1.8/0.3 Oktas while average relative humidity observed as 61%. Mean night time temperature recorded as 6.7°C & for the recent week 55 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

**Zhob**

Dry weather reported from Zhob during the week; however, cloudiness in the morning/evening recorded as 0.4/0.0 Oktas while average relative humidity observed as 38%. Mean night time temperature recorded as 0.4°C & for the recent week 27.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 3.0/4.3 knots.

**Murree**

Rainfall reported as 3.0 mm from Murree during the week; however, cloudiness in the morning/evening recorded as 1.4/2.0 Oktas while average relative humidity observed as 44%. Mean night time temperature recorded as 0.6°C & for the recent week 1.2 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 2.4/1.1 knots.

**D.I. Khan**

Dry weather reported from D.I. Khan during the week; however, cloudiness in the morning/evening recorded as 3.6/1.3 Oktas while average relative

humidity observed as 68%. Mean night time temperature recorded as 4.2°C & for the recent week 50.0 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/2.0 knots.

#### **Peshawar**

Dry weather reported from Peshawar during the week; however, cloudiness in the morning/evening recorded as 0.8/2.0 Oktas while average relative humidity observed as 69%. Mean night time temperature recorded as 2.0°C & for the recent week 37.7 growing degree days accumulated by the end of last week. Wind speed recorded in the morning/evening as 0.0/0.3 knots.

#### **Kalam**

Rainfall reported as 2.0 mm from Kalam during the week; however, cloudiness in the morning/evening recorded as 3.8/3.0 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as -4.9°C. Wind speed recorded in the morning/evening as 0.0/0.0 knots.

#### **Gilgit**

Rainfall reported as *trace* from Gilgit during the week; However, cloudiness in the morning/evening recorded as 3.4/4.0 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as -5.5°C. Wind speed recorded in the morning/evening as 0.0/1.1 knots.

#### **Skardu**

Dry weather reported from Skardu during the week; However, cloudiness in the morning/evening recorded as 5.8/3.7 Oktas while average relative humidity observed as 67%. Mean night time temperature recorded as -8.7°C. Wind speed recorded in the morning/evening as 0.0/0.6 knots.

### **Crop Situation for Major Agricultural Plains (Based on data from Regional Agro met Centers)**

#### **Potohar Region (Rawalpindi)**

There is presently no crop grown in the fields of RAMC Rawalpindi.

#### **Central Punjab (Faisalabad)**

There is presently one crop in the fields of RAMC Faisalabad.

**Wheat (*Galaxy*);** Good Condition at *Tillering stage*

#### **Lower Sindh (Tandojam)**

There is presently one crop in the fields of RAMC Tandojam.

**Wheat (*Sindhu*);** Good Condition at *Tillering stage completed*

#### **Northern Baluchistan (Quetta)**

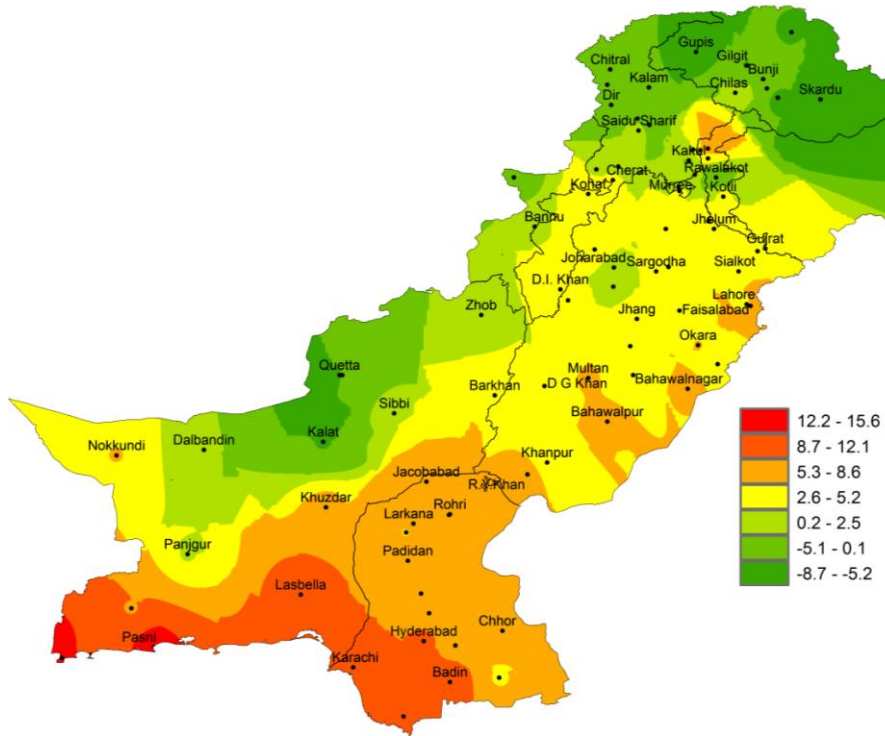
There is presently no crop grown in the fields of RAMC Quetta.

#### **Eastern Baluchistan (Usta Muhammad)**

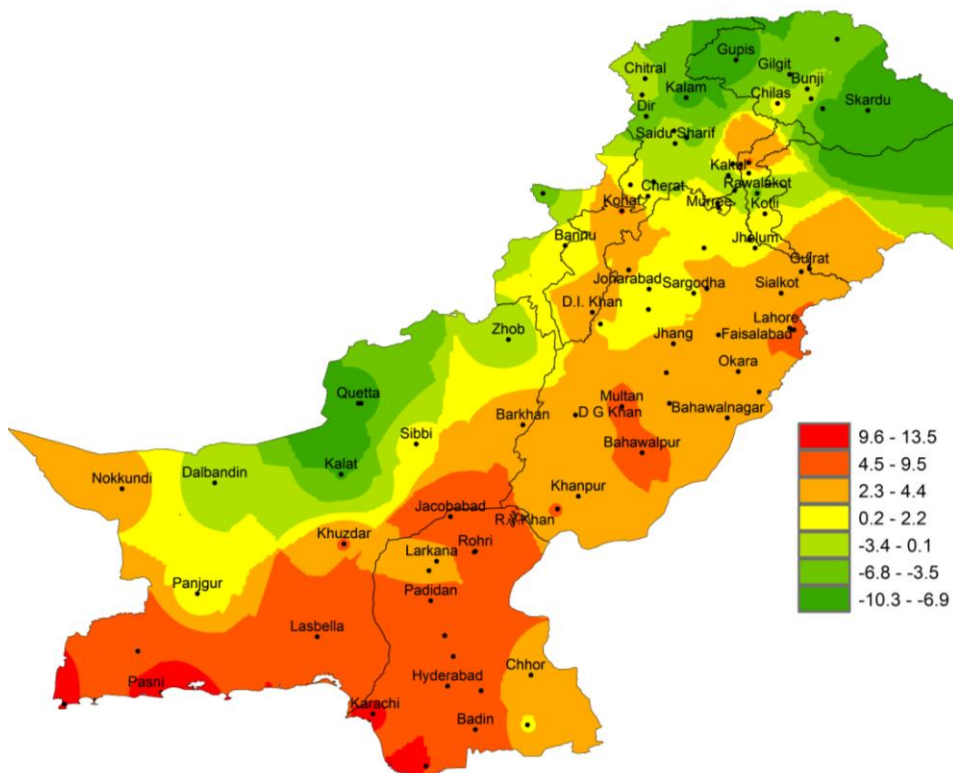
There is presently one crop grown in the fields of RAMC Usta Muhammad.

**Wheat (*Galaxy*);** Good Condition at *Tillering stage*

Mean Minimum Temperature (°C) during the Previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)

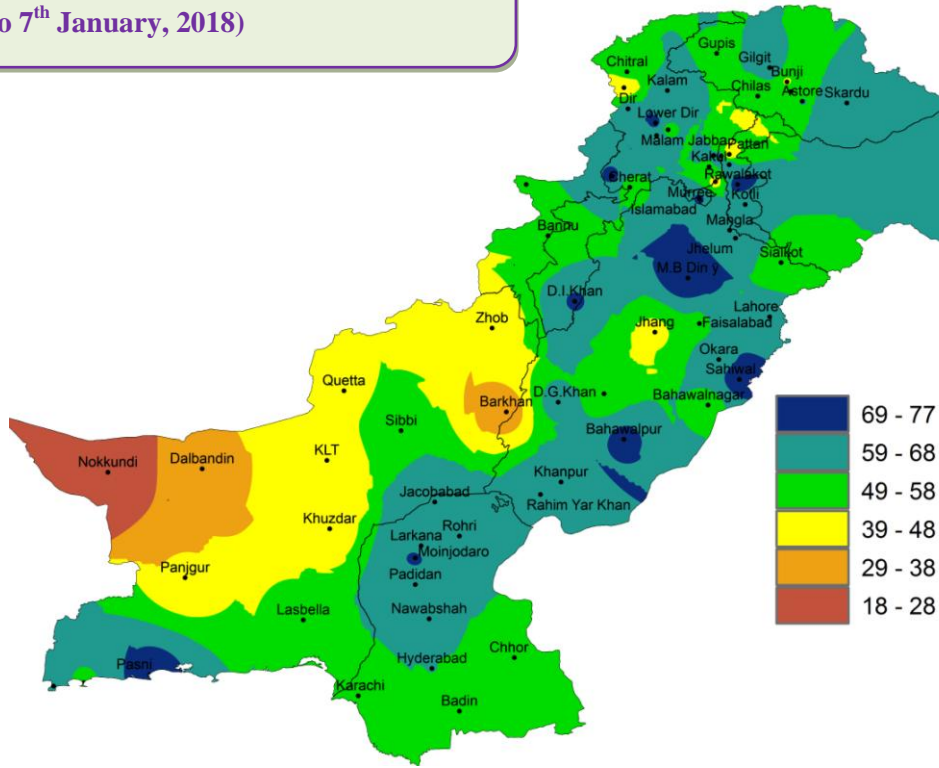


Lowest Minimum Temperature (°C) during the Previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)

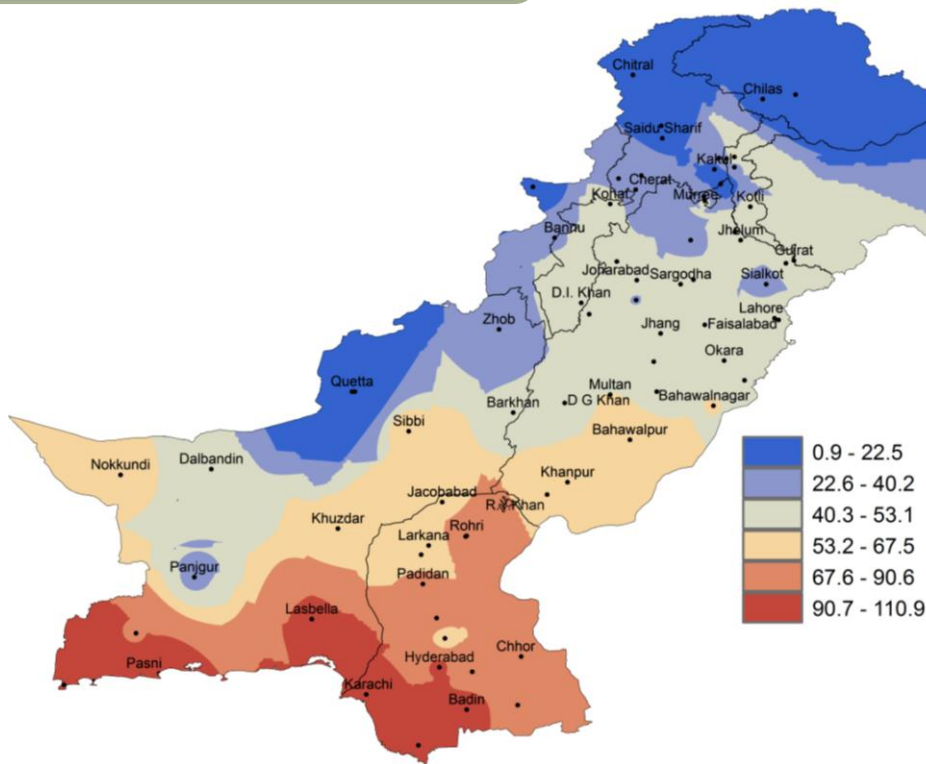




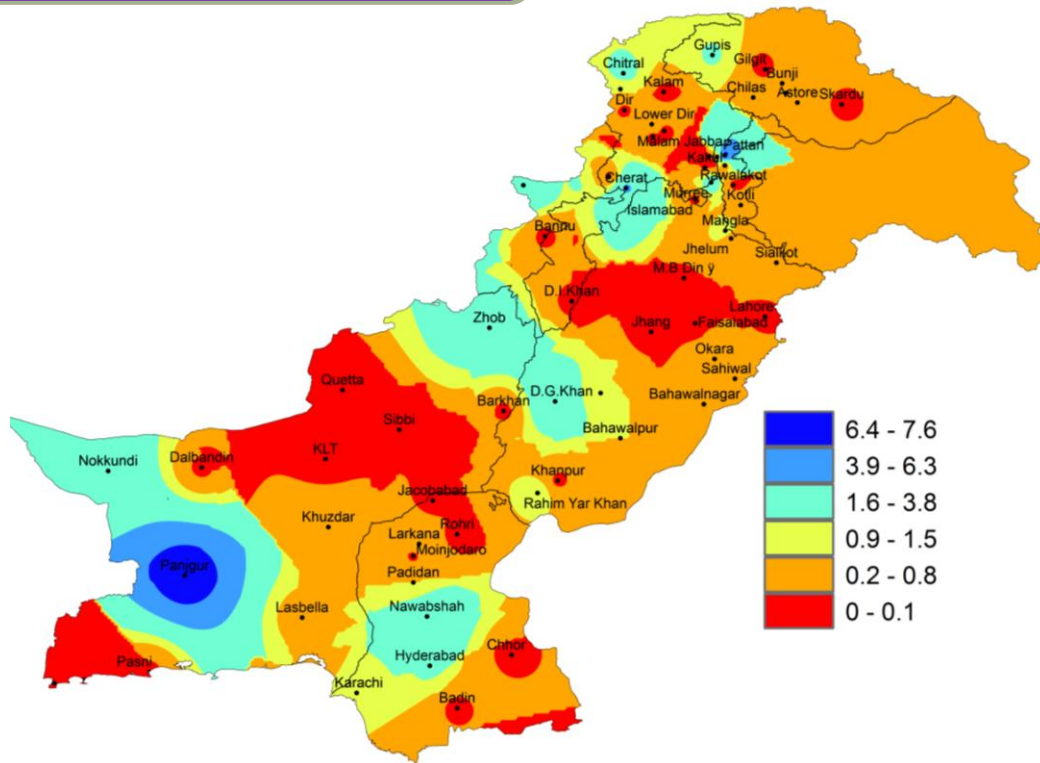
Mean Relative Humidity (%) during the previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)



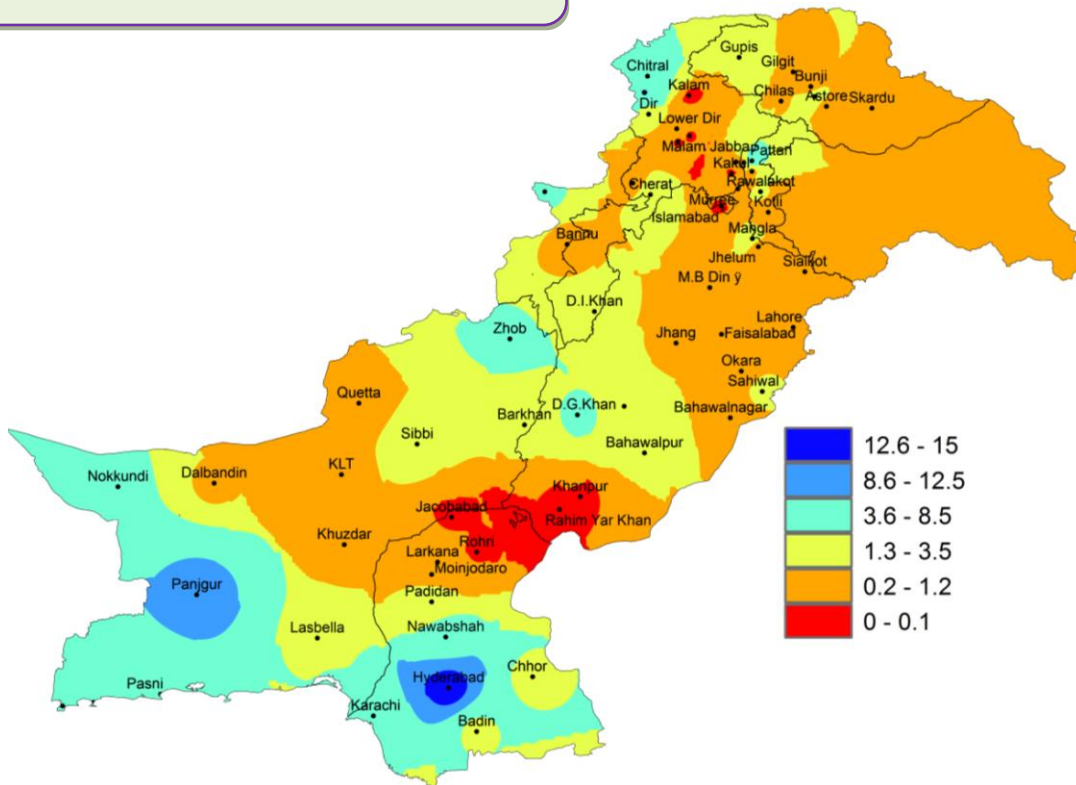
Total Growing Degree Days accumulated during the previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)



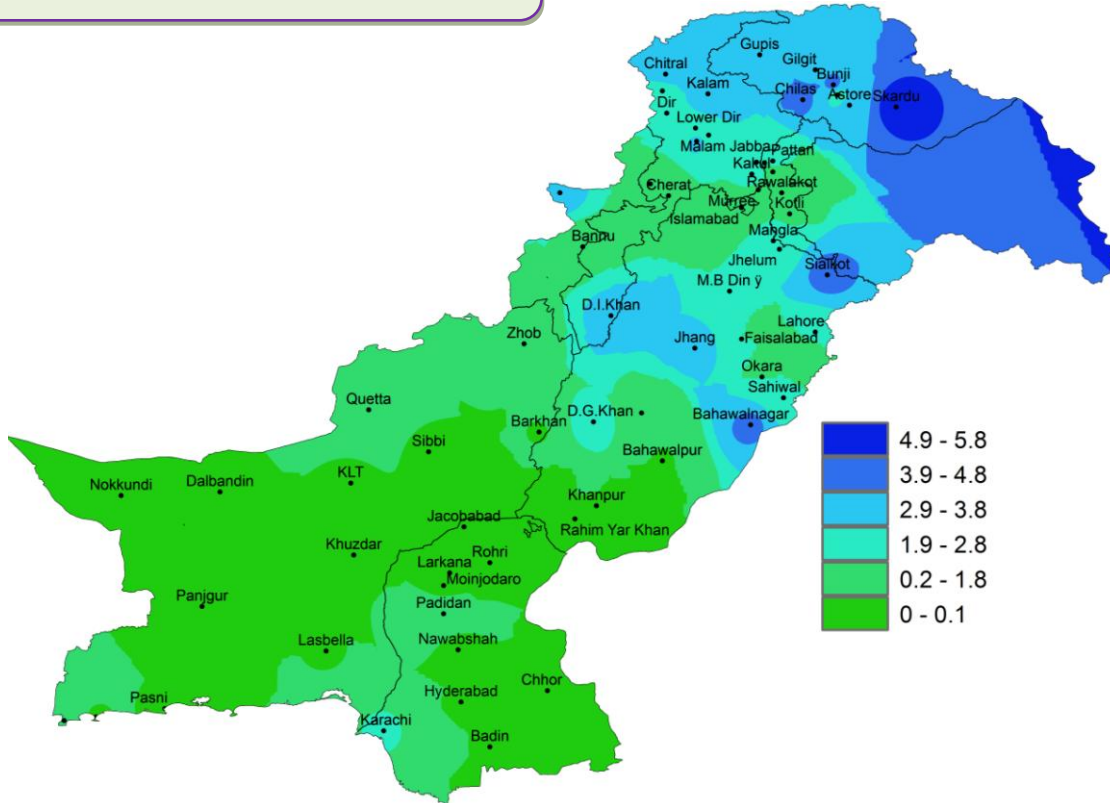
Mean Wind Speed (Knots) at 0800PST during the previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)



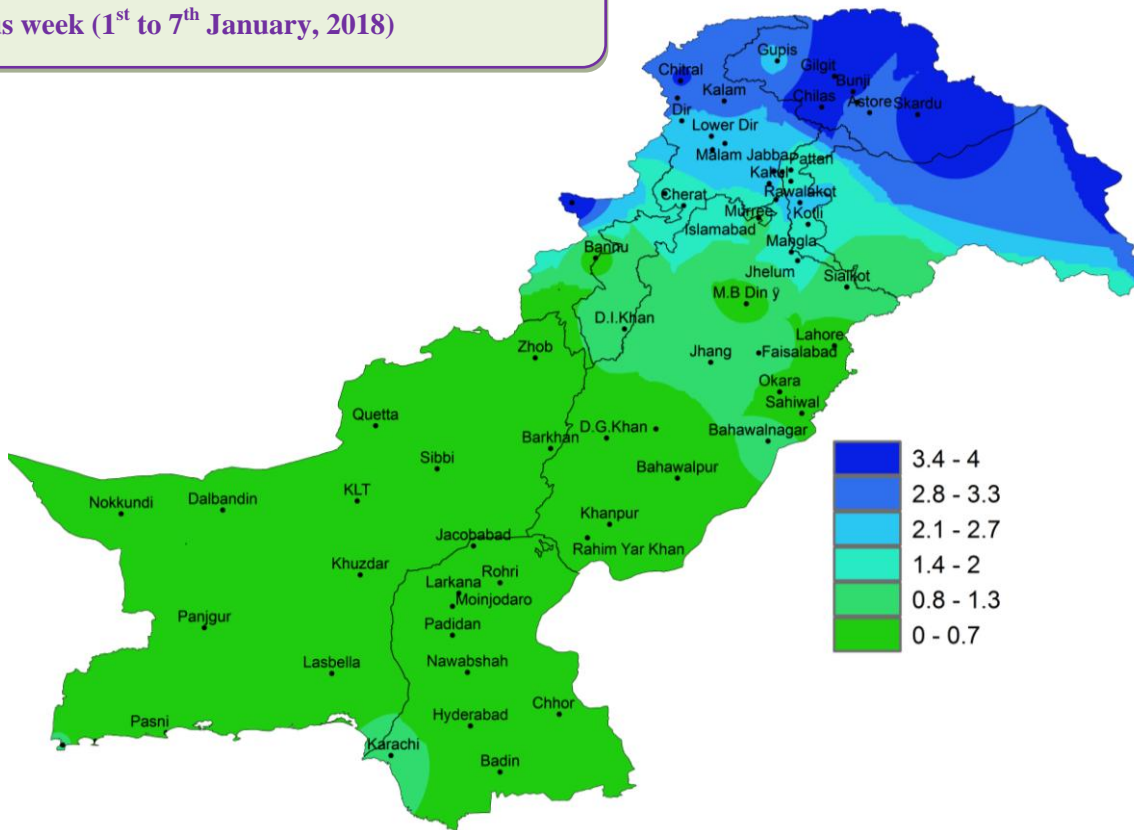
Mean Wind Speed (Knots) at 1700PST during the previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)



Mean Cloudiness (Oktas) at 0800PST during the previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)



Mean Cloudiness (Oktas) at 1700PST during the previous week (1<sup>st</sup> to 7<sup>th</sup> January, 2018)





**Weekly Weather Advisory for Farmers**  
**(8<sup>th</sup> to 14<sup>th</sup> January, 2018)**

Continental air is prevailing over most parts of the country.

**MONDAY**  
**08-01-2018**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail over few plain areas of Punjab and upper Sindh during night and morning hours.

**TUESDAY**  
**09-01-2018**

Mainly cold and dry weather is expected in most parts of the country. However, rain/thunderstorm with snowfall over the hills is expected at few places in Malakand, Makran divisions and Gilgit-Baltistan. Foggy conditions are likely to prevail over few plain areas of Punjab and upper Sindh during night and morning hours.

**WEDNESDAY**  
**10-01-2018**

Mainly cold and dry weather is expected in most parts of the country. However, rain/thunderstorm with snowfall over the hills is expected at few places in Malakand division and Gilgit-Baltistan. Foggy conditions are likely to prevail over few plain areas of Punjab and upper Sindh during night and morning hours.

**THURSDAY**  
**11-01-2018**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail over few plain areas of Punjab and upper Sindh during night and morning hours.

**FRIDAY**  
**12-01-2018**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail over few plain areas of Punjab and upper Sindh during night and morning hours.

**SATURDAY**  
**13-01-2018**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail over plain areas of Punjab and upper Sindh during night and morning hours.

**SUNDAY**  
**14-01-2018**

Mainly cold and dry weather is expected in most parts of the country. Foggy conditions are likely to prevail over plain areas of Punjab and upper Sindh during night and morning hours.

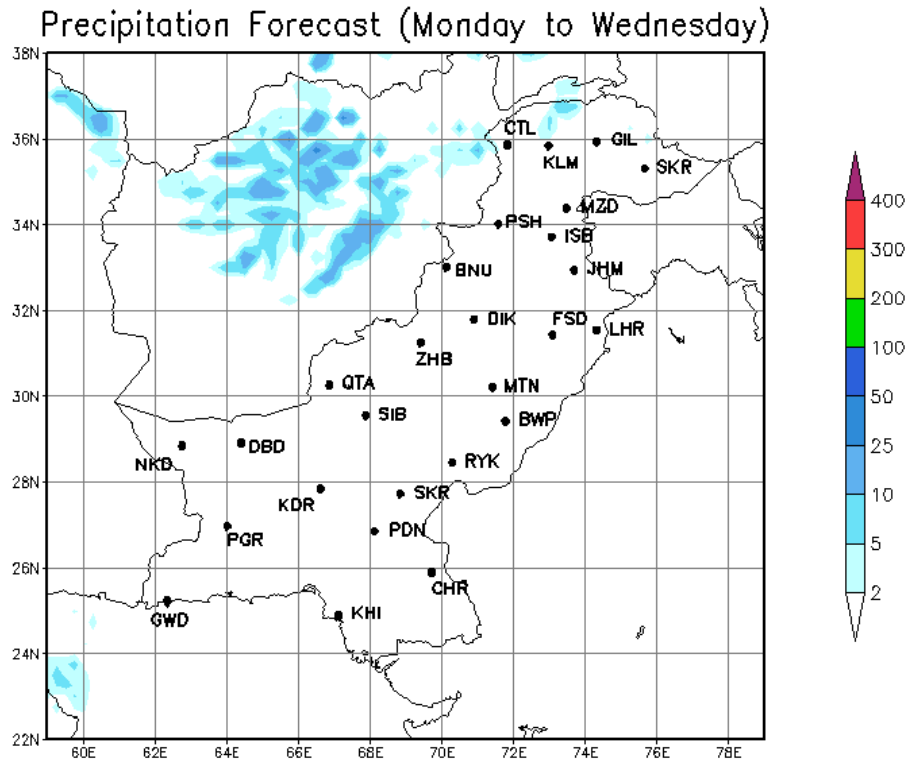
**ADVISES FOR FARMERS**

During the last week, light rainfall occurred at isolated parts of the country. In next week dry weather (no rainfall) is expected in most parts of the country. Accordingly, following advises are suggested for the farming community.

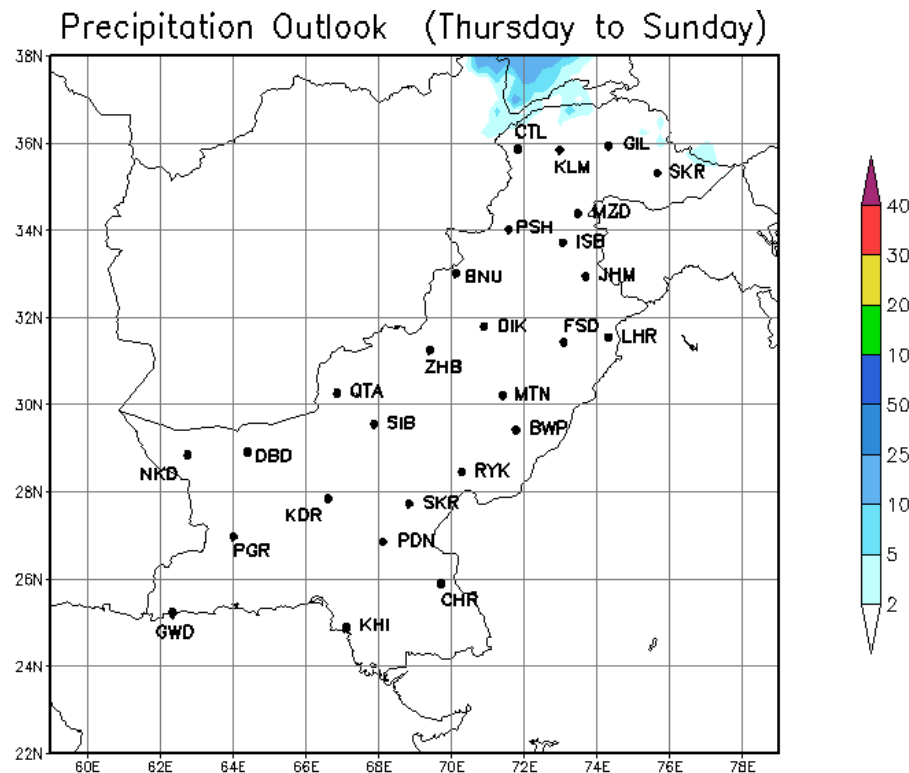
- Necessary precautionary measures may be taken to protect crops/nurseries from effects of extreme cold weather conditions.
- Removal of weeds from the fields may be ensured.

## Weather Outlook from 8<sup>th</sup> to 14<sup>th</sup> January, 2018

The outlook for the period 8<sup>th</sup> to 10<sup>th</sup> January, 2018 shows that dry weather may prevail in most parts of the country however light rainfall is expected at a few places in upper KP.



The outlook for the period 11<sup>th</sup> to 14<sup>th</sup> January, 2018 shows that dry weather is expected to prevail in most parts of the country however light rainfall is expected at a few places in upper KP and Gilgit-Baltistan.



**National Weather Data of Selected Cities (1<sup>st</sup> to 7<sup>th</sup> January, 2018)**

Stations	Minimum Night time Temperature (°C)		Growing Degree Days	Relative Humidity (%)	Rainfall (mm)	Cloudiness (Oktas) 0800 PST	Cloudiness (Oktas) 1700 PST	Wind Speed (Knots) 0800 PST	Wind Speed (Knots) 1700 PST
	Mean	Lowest							
Astore	-8.0	-10.0	**	58.1	0.00	3.2	3.0	0.8	0.6
Badin	12.0	9.5	99.3	52.4	0.00	0.0	0.4	0.0	2.3
Bahawalnagar	5.6	4.0	53.5	52.2	0.00	4.2	0.9	0.4	0.6
Bahawalpur	5.6	4.8	62.5	70.0	0.00	0.0	0.0	0.8	1.4
Balakot	2.1	0.6	29.6	57.8	1.00	2.6	2.9	0.0	0.4
Bannu	2.0	1.0	39.5	47.5	0.00	0.6	0.4	0.0	0.3
Barkhan	4.6	3.5	42.0	31.3	0.00	0.0	0.0	0.0	1.4
Bunji	-0.2	-1.7	**	46.3	0.00	4.4	3.9	0.4	0.3
Cherat	3.8	1.5	23.8	52.5	0.00	1.4	1.4	4.0	2.6
Chhor	6.0	4.0	85.1	52.2	0.00	0.0	0.3	0.0	2.3
Chilas	1.6	0.5	16.0	47.5	0.00	4.0	3.9	0.4	1.1
Chitral	-0.6	-3.2	4.8	51.3	0.00	3.6	3.4	2.0	4.9
D.G.Khan	3.6	2.5	48.7	63.1	0.00	2.8	0.0	3.2	4.0
D.I.Khan	4.2	3.5	50.0	68.2	0.00	3.6	1.3	0.0	2.0
Dalbandin	0.1	-1.0	42.6	34.0	0.00	0.0	0.0	0.0	0.6
Dir	-4.6	-6.0	**	62.1	8.00	2.2	2.4	0.0	1.7
Drosh	-1.4	-2.5	**	39.0	0.40	2.2	3.0	0.8	8.9
Faisalabad	2.8	2.5	47.1	73.0	0.00	0.0	0.9	0.6	2.5
Gari dopatta	2.1	0.5	35.1	65.1	0.00	1.4	1.6	0.0	0.3
Gawader	9.6	6.5	93.9	56.1	0.00	0.0	0.3	0.0	3.7
Gilgit	-5.5	-7.0	**	66.9	0.01	3.4	4.0	0.0	1.1
Gupis	-7.8	-8.5	**	54.9	0.00	3.2	2.6	1.6	1.7

Hyderabad	9.8	7.0	94.3	57.5	0.00	0.0	0.4	1.6	15.0
Islamabad	1.6	0.8	36.5	68.7	0.01	1.0	1.1	0.0	0.0
Jacobabad	7.4	6.5	65.0	67.1	0.00	0.0	0.0	0.0	0.0
Jhang	3.8	3.0	49.7	44.7	0.00	3.6	1.1	0.0	0.6
Jhelum	3.3	2.2	46.9	61.7	0.00	2.2	1.4	0.4	0.9
Jiwani	15.6	13.5	110.1	60.4	0.00	1.0	0.7	0.0	7.1
Kakul	-0.2	-2.0	15.5	56.3	1.00	2.6	2.1	0.0	0.0
Kalam	-4.9	-8.0	**	67.3	2.00	3.8	3.0	0.0	0.0
Kalat	-5.4	-7.0	**	43.7	0.00	0.0	0.0	0.0	0.9
Karachi	11.7	9.6	102.0	54.4	0.01	2.0	0.9	0.8	4.9
Khanpur	4.0	3.0	57.5	65.0	0.00	0.0	0.0	0.0	0.0
Khuzdar	6.3	4.5	57.3	40.4	0.00	0.0	0.0	0.4	0.6
Kotli	3.2	2.1	46.5	60.2	0.00	1.6	1.6	0.4	0.6
Lahore	6.7	5.7	55.0	61.0	0.00	1.8	0.3	0.0	0.6
Larkana	5.7	4.0	63.7	62.5	0.00	0.0	0.0	0.7	0.9
Lasbella	10.5	8.0	94.7	52.1	0.00	0.0	0.3	0.4	2.3
Lower Dir	-0.3	-2.0	18.8	70.1	0.00	2.2	2.4	0.8	1.1
M.B Din	5.0	4.0	46.5	77.5	0.00	1.8	0.4	0.0	0.6
Malam Jabba	-1.4	-5.0	**	53.3	11.00	2.6	2.1	0.0	0.0
Mangla	3.5	1.6	46.5	64.6	0.00	2.2	1.4	1.2	1.7
Mir Khani	-0.9	-2.6	7.3	51.7	0.01	2.0	2.7	0.4	2.4
Moinjodaro	5.1	3.5	60.7	69.1	0.00	0.0	0.0	0.0	1.1
Multan(PBO)	5.4	4.8	53.1	48.7	0.00	0.4	0.0	0.8	2.9
Murree	0.6	-3.0	1.2	44.0	3.01	1.4	2.0	2.4	1.1
Muzaffarabad	4.5	3.5	37.6	62.8	0.00	1.6	1.7	0.0	0.3
Nawabshah	6.9	6.0	77.3	60.1	0.00	0.0	0.0	3.2	5.7



Nokkundi	5.2	3.0	60.3	17.5	0.00	0.0	0.0	2.4	4.0
Okara	5.2	4.0	49.8	64.8	0.00	1.8	0.4	0.4	0.9
Padidan	6.7	6.0	72.4	62.1	0.00	0.4	0.0	0.8	1.4
Panjgur	2.4	1.0	36.8	38.9	0.00	0.0	0.0	7.6	10.9
Parachinar	-2.9	-4.5	0.9	56.8	0.00	3.8	4.0	3.4	4.4
Pasni	13.8	13.5	110.9	72.9	0.00	0.0	0.6	0.0	5.3
Pattan	9.1	5.0	56.8	34.2	1.00	2.2	1.7	7.6	7.0
Peshawar	2.0	1.6	37.7	69.4	0.00	0.8	2.0	0.0	0.3
Quetta	-1.7	-3.0	7.5	32.0	2.00	1.0	0.4	1.5	2.5
Rahim Yar Khan	6.1	4.5	67.3	65.5	0.00	0.0	0.0	1.2	0.0
Rawalakot	-2.6	-4.0	**	72.2	0.02	1.2	2.6	0.0	1.4
Rawalpindi	1.4	0.5	38.7	77.0	Trace	1.0	1.0	0.3	0.6
Rohri	7.5	5.0	71.0	61.4	0.00	0.0	0.0	0.0	0.0
Sahiwal	4.3	2.8	46.5	72.7	0.00	1.8	0.6	0.8	1.4
Saidu Sharif	1.1	-0.5	21.4	64.4	4.01	3.0	2.7	0.0	0.0
Sialkot	5.2	3.8	43.9	52.5	0.01	4.4	1.0	0.6	0.9
Sibbi	2.5	2.0	66.5	52.3	0.00	0.0	0.0	0.0	2.0
Skardu	-8.7	-10.3	**	67.1	0.00	5.8	3.7	0.0	0.6
Tandojam	5.0	4.0	71.0	59.0	0.00	0.0	0.0	0.0	1.2
Usta. M	7.4	6.0	63.8	71.0	0.00	0.0	0.0	0.2	0.6
Zhob	0.4	-1.0	27.0	38.4	0.00	0.4	0.0	3.0	4.3

\*\*\* Shows that data was not available.

\*Trace shows not-measurable data

## Findings of AgMIP Pakistan, University of Agriculture, Faisalabad

1. There would be significant increase in temperature i.e., 2.8°C in day and 2.2°C in the night during mid-century (2040-2069).
2. There would be significant variability in rainfall patterns (about 25% increase in summer & 12% decrease in winter during 2040-2069).
3. Climate Change will affect the crop yields negatively (about 17% for rice and 14 % for wheat).
4. If there will be no adaptation to Climate Change, majority of farmers would be the economic losers.
5. With Adaptation to Climate Change (through technology and management), there would be significant decrease in poverty and improvement in the livelihood of farming community.

*(Agricultural Model Inter-comparison and Improvement Project (AgMIP) Pakistan  
2012-2014)*

- 1- سال 2040-69 کے دوران درجہ حرارت میں قابل ذکر اضافہ ہو سکتا ہے۔ جو کہ دن کے وقت 2.8°C اور رات کو 2.2°C تک ہوگا۔
- 2- گرمیوں کی بارش میں 25 فیصد اضافہ اور سردیوں کی بارش میں 12 فیصد تک کمی کا امکان ہے۔
- 3- مندرجہ بالا موسمی تغیرات کی وجہ سے دھان کی پیداوار میں 17 فیصد اور گندم کی پیداوار میں 14 فیصد تک کمی ہو سکتی ہے۔
- 4- اگر موسمی تغیرات کا مناسب بندوبست نہ کیا گیا۔ تو کسانوں کی اکثریت کو معاشی نقصان کا سامنا کرنا پڑے گا۔
- 5- موسمی تغیرات کے سدباب (بذریعہ نئی ٹیکنالوجی کا استعمال اور بہتر نظم و نسق) سے غربت میں کمی اور کسانوں کی زندگی میں خوشحالی لائی جاسکتی ہے۔

(ایگمپ پاکستان 2012-2014)